

# U.S. power grid is holding up to the summer heat

- Story Highlights
- Energy experts say power grid can handle demand from summer heat
- Electricity can't be stored, systems must be able to make more than needed
- System designed to handle the hottest days, expert says
- 2003 blackout knocked out power to 40 million, cost \$6 billion

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CNN

(CNN) -- Air conditioners are straining to beat triple-digit temperatures in the Southwest and highs in the 90s across the eastern half of the country, but energy experts say they don't expect to face summer blackouts.

"The system is designed for these types of days," said Ed Legge, a spokesman for the Edison Electric Institute, an electric company trade group. "The guys that design our power plants and everything else in the whole system that delivers power to customers -- they design it for the hottest day of the year, knowing that you're not going to use it every day, but it's got to be able to do that."

New York power company Con Edison says it has installed new equipment and power cables to avoid a repeat of last year's blackout that left 175,000 Queens residents without power for nine sweltering days.

Company officials told CNN only a few Manhattan customers didn't have power on Monday.  [Watch why officials aren't expecting blackouts »](#)

Electricity cannot be stored, so power systems have to be able to produce more than is needed to meet potential spikes in demand and pick up the slack when generators go offline for maintenance or other problems.

"Electricity is the ultimate just-in-time inventory product, meaning you have to produce and generate the amount of power customer's demand instantaneously at any moment," said Rick Sergel, CEO of the North American Electricity Reliability Corporation. NERC is in charge of overseeing the U.S. power grid.

Sergel said a prolonged heat wave that covers a broad geographic area could be a challenge this summer, but said "the reserves are adequate to handle the majority of the weather conditions we expect to face."

According to the U.S. Energy Information Administration, U.S. power systems had the ability to generate 15.4 percent more electricity than was needed in 2005 -- the most recent figures available.

But that margin is shrinking, Legge said.

The EEI estimates that between 250 and 500 new power plants are needed to meet the expected demand in 2030.

More transmission lines are needed as well, Sergel said.

"Demand for electricity is expected to increase by 20 percent over the next 10 years, but we saw only an increase of 6 percent in the expected growth of transmission facilities to serve that load," he said.

A problem with the grid serving New York and 12 other northeastern states triggered the worst blackout in U.S. history in 2003. It left 40 million people in the dark and caused \$6 billion in economic losses.

Sergel said the industry has made a lot of improvements since then.

He said a law that took effect last month gave NERC the authority to fine power companies that violate industry standards -- standards that had been voluntary.

Sergel said power systems have worked to clear trees away from transmission lines and invested heavily in new lines and in cutting demand.

"There's been a very sharp increase in demand side management programs that encourage customers, often through price incentives, to reduce or eliminate their demand in peak periods and those programs have been very successful," he said.

EEI said the industry spent more than \$5.8 billion on transmission programs in 2005 and was expected to spend even more in the next few years.

CNN's Jim Acosta, Brian Vitagliano and Laura Dolan contributed to this report.

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